DOCUMENT RESUME

ED 253 561 TM 850 101

AUTHOR Nerad, Maresi
TITLE Implementation Analysis--A New Magic Tool for Research in Higher Education, or, Why Don't We Learn From History in the Case of the West German Gesamthochschule Arbeitspapiere Nr. 17.
INSTITUTION Kassel Univ. (West Germany). Scientific Center for Professional and University Research.
PUB DATE 84
NOTE 55p.
PUB TYPE Reports - Research/Technical (143) -- Information Analyses (070)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Educational Change; Evaluation Methods; Foreign Countries; Higher Education; *Program Evaluation; *Program Implementation; *Research Methodology; Universities
IDENTIFIERS *Implementation Analysis; West Germany

ABSTRACT

The current literature on implementation analysis is reviewed, with emphasis on the most recent German literature. The use of implementation analysis is also discussed as a means for analysis and prediction of higher education reforms in Germany. The implementation approach emphasizes the process of carrying out a policy and explores the reasons for the deviations from the original goals. The approach assumes goals will change during the process of program realization. The implementation study of the German Gesamthochschule is used as an example of the utility of the implementation approach as an analytical tool for analysis. The conclusion is drawn that the researcher's perspective on the subject will determine any final evaluation. The argument is presented that the analytical quality of the approach is of limited use for predictions of outcomes and for prescriptions of successful implementation strategies. (DWH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Arbeitspapiere

ED253561

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

G. Gorzka

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Maresi Nerad

IMPLEMENTATION ANALYSIS - A NEW MAGIC TOOL FOR RESEARCH IN HIGHER EDUCATION

or

17 Why Don't We Learn From History in the Case of the West German Gesamthochschule

Kassel 1984

T Ind 8 C 101

Arbeitspapiere des Wissenschaftlichen Zentrums für Berufs- und Hochschulforschung an der Gesamthochschule Kassel

Nr. 17

Maresi Nerad

IMPLEMENTATION ANALYSIS - A NEW MAGIC TOOL FOR RESEARCH IN HIGHER EDUCATION

or

17 Why Don't We Learn From History in the Case of the West German Gesamthochschule

Kassel 1984

ARBEITSPAPIERE

Herausgeber: Wissenschaftliches Zentrum für
Berufs- und Hochschulforschung
an der Gesamthochschule Kassel
Redaktion: Gabriele Gorzka

c 1984 - Alle Rechte vorbehalten
Wissenschaftliches Zentrum für
Berufs- und Hochschulforschung
Gesamthochschule Kassel
Henschelstraße 2
D-3500 Kassel
Tel.: 0561/804 2415

TABLE OF CONTENTS

Foreword (Ulrich Teichler) 1

1. The German **Gesamthochschule** - a Worth-While Case Study Testing the Implementation Approach 4

2. Basic Facts on the **Gesamthochschule** 6

   2.1 Dissatisfaction with the Old University 6

   2.2 Formulation of Goals 7

   2.3 Goals versus Outcomes 7

3. Implementation: A New Research Area and Policy Analysis Approach 12

   3.1 Planning-Control Approach or Managerial Model 13

   3.2 Interaction Approach or Bargaining Model 15

   3.3 Evolutionary Approach or Learning Model 16

   3.4 An Analytical Paradigm for Implementation Research 17

4. On Choosing an Implementation Approach 20

5. What [illegible] We Learn for Future Implementation 24

6. Learning from History 27

Notes 30

Appendix 33

Bibliography 42

VORWORT

Der hier vorgelegte Bericht von Maresi Nerad beabsichtigt, ausländischen Lesern sowohl die Entwicklung des Hochschulsystems als auch den Stellenwert ausgewählter Forschungsansätze in der Bundesrepublik Deutschland vor Augen zu führen. Sie zeigt auf, in welchem Kontext sich die Idee der Gesamthochschulen entwickelt hat und welche Erfahrungen im Implementationsprozeß gewonnen wurden. Dabei werden ausführlich die Ergebnisse der Studie über die Implementation von Gesamthochschulen dargestellt, die wir vor einiger Zeit publiziert haben. [1]

Der Beitrag von Maresi Nerad soll jedoch nicht als Buchbesprechung verstanden werden, sondern hat seine eigenen Akzente. Insbesondere für den ausländischen Leser stellt er die Diskussion über Gesamthochschulen und deren Auswirkungen in einen weiteren Kontext von Entwicklungstendenzen des Bildungssystems und der Bildungspolitik. Vor allem macht Maresi Nerad am Beispiel der Gesamthochschulentwicklung deutlich, wie verschiedene Denkansätze der Implementationsforschung die Wahrnahme und Interpretation von Politikern und deren praktische Umsetzung prägen. So wird deutlich, wie wichtig es bei der Lektüre wissenschaftlicher Analysen des Hochschulsystems ist, sich auch mit den zugrundeliegenden Forschungsansätzen auseinanderzusetzen.

Aylâ Neusel Ulrich Teichler

---

1 Cerych, Ladislav; Neusel, Aylâ; Teichler, Ulrich; Winkler, Helmut: Gesamthochschule - Erfahrungen, Hemmnisse, Zielwandel. Frankfurt und New York: Campus 1981.

Cerych, Ladislav; Neusel, Aylâ; Teichler, Ulrich; Winkler, Helmut: Implementation of Higher Education Reforms: The German Gesamthochschule. Paris: European Cultural Foundation. Institute of Education. 1981.

FOREWORD

The following paper aims to inform non-German readers about developments of higher education in the Federal Republic of Germany and to assess various research approaches. It describes the context in which the concept of the comprehensive university emerged and the experiences gathered in the process of implementation. Maresi Nerad refers in detail to the findings of a study which we published some time ago.[1]

The paper by Maresi Nerad is, however, not merely a book review, but it is an analysis in its own right. It discusses the development of the comprehensive university in broader context of trends in education as well as in education policy. It especially emphazises the impact a choice of various implementation theories might have on the perception and interpretation of implementation processes. Thus, the author suggests that readers of educational system analyses ought to be aware of the underlying approaches and the role they play in research.

Aylâ Neusel Ulrich Teichler

---

1 Cerych, Ladislav; Neusel, Aylâ; Teichler, Ulrich; Winkler, Helmut: Implementation of Higher Education Reforms: The German Gesamthochschule. Paris: European Cultural Foundation. Institute of Education. 1981.

Cerych, Ladislav; Neusel, Aylâ, Teichler, Ulrich; Winkler, Helmut: Gesamthochschule - Erfahrungen, Hemmnisse, Zielwandel. Frankfurt und New York: Campus 1981.

ABSTRACT

The purpose of this paper is twofold. Firstly, it reviews the current literature on implementation with particular emphasis on the latest German literature (not yet translated into English). Secondly, it reflects upon the use of implementation analysis as a means both for a n a l y s i s and for p r e d i c t i o n of higher education reforms in Germany.

Using the recently published implementation study of the German **Gesamthochschule**[1], this paper argues that the implementation approach is useful as an analytical tool for the analysis of the **Gesamthochschul-Reform** but does not help determine the success or failure of the reform. It concludes that the researcher's perspective on the subject will largely determine any final evaluation.

Further, it will be argued that the analytical quality of the approach is only of limited use for predictions of outcomes and for prescriptions of successful implementation strategies. Lessons from history might guide us as well in our search for clues for tomorrow.

This paper does not attempt to review the study of the **Gesamthochschule**. The interested reader is referred tc the excellent, short, English publication of The Institute of Education of the European Cultural Foundation in Paris (December, 1981).[2]

1. The German Gesamthochschule, a Worth-While Case Study Testing the Implementation Approach

The Gesamthochschule* (Comprehensive University) has been defined as a "higher education institution bringing together and associating in one form or another hitherto separated types of German higher education, in particular universities or technical universities, teacher training colleges (Pädagogische Hochschulen), technical colleges (Fachhochschulen) and possibly also, Fine-Art Colleges (Kunst- und Musikhochschulen)."[3] This description already indicates the absence of a clear definition of the term GHS and shows the wide range of aspects covered.

The idea of the Gesamthochschule concept emerged in 1970, as an answer to the widely debated necessity of university reform in West Germany. The principal issue was the adaptation to mass education at the university level. The concept of the GHS tried to tie together several reform ideas. These ideas ranged from economic considerations, such as increasing the number of highly qualified young people and assuring the international competitiveness of the German economy ("Educational Catastrophe" - Bildungskatastrophe, Georg Picht, 1963) to the democratic ideal of equal opportunity for all citizens ("Education is a citizen's right" - Bildung ist Bürgerrecht, Ralf Dahrendorf, 1965). Three overall goals were meant to be accomplished with the establishment of the Gesamthochschule, which was set out to become the organizational model for a l l German higher education institutions. These were:

- changed access policy in higher education,
- articulation between levels of the vertical structure of the different higher education institutions,
- expansion of higher education offerings through the inclusion of more applied courses.

Ten years later, comparing the outcomes with the intended, though vague, goals, we find that the GHS did n o t become the organizational pattern for all German universities. The reform experienced a fate similar to that of many grand plans. Goal distortion, partial achievements, dissolution of the

---

* In the following, I will use the abbreviation GHS.

initial aims or their replacement by other objectives are phenomena well known in policy implementation analysis. But they have very rarely been studied with regard to higher education reforms.

The GHS is a very interesting and at the same time very difficult case for the study of the implementation process. It is i n t e r e s t i n g because several implementation processes within one reform policy can simultaneously be observed. Federalism in Germany creates a quasi-experimental situation. Both the effects of modification of the program and the effects of different implementation strategies in the eleven **Länder** (states) can be observed. It is a very d i f f i c u l t case due to the complexity of the reform.

The implementation study of the German **Gesamthochschule** hoped to answer the following questions:

- How successful was the GHS program in accomplishing the three basic goals?
- Did the selected strategies match the goals?
- Is it enough looking at governmental planning policies for social change, when we adequately want to analyse the GHS?
- Can we find a destinctive implementation pattern in the higher education field as compared to housing, social services, or the private sector?
- What are the contributions and limitations of the implementation approach for the analysis of the reform events of the past decade?

This paper will focus on the l a s t question and will reflect on what we can learn from this study about the use of the implementation approach for future programs and better strategies. But first, some basic facts about the GHS reform might ease the pursuit of the discussion on the use of the implementation analysis.

2. Basic Facts on the Gesamthochschule

2.1 Dissatisfaction with the Old University

Since the mid-sixties the university reform has become a major issue in West Germany. The organization and administration of the German university as well as its mode of research and instruction, established in the early 19th century, was still in existance in the early sixties. Even the Allies after 1945 had not fundamentally questioned its structure. At latest in 1963, with the book of Picht, Die deutsche Bildungskatastrophe (the German educational catastrophy), the crisis in German education became publicly apparent. Factors contributing to this situation were the authoritarian structure of the ordinarian university, the social exclusiveness of its students (only 6 % from working class background), the uncoordinated and outdated curricula, and the inefficient and often irrelevant practical training, particularly in the natural sciences. However, the main reasons for the crisis were perceived as q u a n t i t a t i v e .

Student enrollments had increased rapidly from 195,670 in 1952 to 305,386 in 1970.[4] OECD publications of the sixties and the studies by Denison (1962)[5] and Schulz (1962)[6] emphasizing the relationship between economic growth and investment in schools, higher education and research created great anxiety among the German politicians and educational policy makers. It was thought that West Germany was in danger of becoming a nation which leased patents on inventions developed elsewhere. As a means of warding off the danger of a "technological gap," drastic increases in the number of secondary school graduates were proposed, and these graduates were to receive a more practically oriented higher education. 'Talent reserves' were discovered in predominantly Catholic areas, in rural areas, among the children of workers and farmers and among women.[7]

The motives of the key actors of the reform - students and non-tenured faculty (Assistenten) -, however, were non-economic ones. They were interested in changing content and structure of study and research at the university.

2.2 Formulation of Goals

Between 1967 and 1972 educators and the three political parties (SPD, FDP, CDU/CSU)[8] developed a multitude of concepts and plans encompassing three central goals (see Figure 1).

(1) The e a s e d t r a n s f e r was expected to reduce irregularity of opportunity according to social background and sex. In addition, it was hoped the establishment of comprehensive universities would reduce regional disparities in the supply to colleges.

(2) The s y n t h e s i s of the s c i e n t i f i c orientation of the universities with the p r a c t i c a l orientation of the non-university institutions of higher education was considered appropriate for the needs of modern society and was depicted as more socially just. A more practice-oriented higher education system was expected on the one hand to increase the social responsibility of scholars and on the other hand to prepare students to act as responsible citizens.

(3) The creation of s h o r t e r r o u t e s in higher education (4 - 5 years as against 6 - 7 years of traditional university study) was expected to satisfy the increased demand for higher education and the need for more qualified labour while reducing the cost for each student.

2.3 Goals versus Outcomes

G o a l s (Figure 2): In 1970, the Federal Ministry of Science and Education proposed the **Gesamthochschule** to become the one organizational model for a l l German higher education. Within the **Gesamthochschul-System** students would be able to choose between different levels of training. The curriculum was to be more oriented toward occupational requirements, while vocational courses were to become more theoretical and academic. Cerych et al. classify the many objectives according to their underlying motivations. The objectives related to:

- equality of opportunity and individual development;
- a "radical-democratic" concept of social change;
- improving the capacity and performance of German higher education.

O u t c o m e s (Figure 3): Ten years later, according to Cerych[9], the results are meagre if compared to the far-reaching goal of establishing a new system of higher education.

Figure 1: From Dissatisfaction to Goal Formation

Dissatisfaction with existing system	low percentage of age-group completing general secondary education and entering higher education	vertical segmented secondary and higher educational system with low or no articulation between the sectors	hierarchical decision-making process within the university, lack of participation of 'Mittelbau' assistants, professors and students, lack of an orientation toward practice and societal needs	fear of low international competitiveness of the German economy due to insufficient highly qualified people and inappropriateness of outdated curricula
Central goals	ease transfer between different educational careers	promote a synthesis of the scientific orientation of the universities and the practical orientation of the non-university institutions of higher education	make more attractive sharper routes of higher education and thereby reduce the cost to each student within the expansion of higher education	

Figure 2: From Central Goals to Objectives

Motives of the reformer	Underlying reform concepts	Objectives expected results
1. Reduce inequality of opportunity according to social background through eased transfer between different educational careers	Modernization concept	1. Structural reorganization of the German higher education system 2. Association and integration of different organizational and curriculum forms (University + Teacher College + Technical College)
2. Bring about social change through a more democratic decision-making structure and more socially relevant research	Radical democratic concept	3. Equalisation of opportunities through articulation between different higher education institutions, widening the access to higher education 4. Shortening of the length of studies, thus reducing the costs by increasing the number of students 5. Curriculum reform, linking of theory to practice, improvement of the relation between education and employment
3. Improve the capacity and performance of German higher education through short-cycle studies and adequate qualifications for the employment system	Technocratic concept	6. Inner structural reform, a new faculty structure (one single body), development of interdisciplinary teaching and research 7. More effective use of the personnel and physical facilities 8. Greater interregional equality of opportunities in higher education

Figure 3: Goals versus Outcomes

Official Goals, Federal Law (HRG)* (1976)	Achieved or not achieved	Outcomes (1981)
1. Development of a differentiated but coordinated system of educational patterns of various levels, content and durations allowing for credit transferability	(- / +)	GHS was not adopted as the organizational model for all German higher education institutions. Only 6 'real' GHS have been established, enrolling 5 % of the total German student population
2. Provision of a link between science and practical experience	(+)	GHS developed project-oriented studies, interdisciplinary learning and research and teaching geared to practice
3. More effective student counselling and guidance	?**	Higher percentage of working class student at the GHS than at the university
4. Development of better 'higher education didactics'	(+)	GHS Kassel **Berufspraktische Studien** (vocational practice studies)
5. Better use of higher education facilities	(-)	Majority of students opted for larger university type of courses (5.2 years); expenses per GHS student similar to expenses per university student
6. Provision of research opportunities for leaders who had not benefitted from them	(-)	No integrated faculty and staff structure among short-cycle and long-cycle studies
7. Integrated planning of higher education	(-)	Existing universities remained separate. They did not want to be associated with new 'less' prestigious institutions
8. Inter-regional equalisation of educational opportunity	(+)	Increase in higher education enrollment in areas with previous low enrollment

* **Hochschulrahmengesetz** (Framework Act for Higher Education)

** It is questionable whether the larger number of working-class students results from better counselling or from the regional location fo the GHS. The study does not talk about counselling or guidance.

17

18

(1) Basically, an additional type of institution has simply been established.

(2) Out of the 11 **Länder**, only two created **Gesamthochschulen** are approximating the pattern envisaged. They enroll about 5 % of the German student population (see Appendix, Table 1).

(3) These institutions succeeded in extending university-type education to students not admitted to traditional universities and these students then achieved results comparable to those who were traditionally admitted (see Appendix, Table 2).

(4) Some of the GHS, in particular Kassel, have succeeded in giving their courses a more practical orientation ("vocational practice studies" - **Berufspraktische Studien**).

(5) The vast majority of the students have opted for longer university-type courses, whenever they had a choice. This can be taken as an indicator of the failure to make short-cycle courses more attractive (consecutive and y-model; see Appendix, Table 3 and Figure 3).

(6) The GHS were successful in serving a region and increasing the chances of students from blue-collar background in obtaining a university degree (see Appendix, Tables 4 and 5).

(7) The GHS have not succeeded in developing an integrated staff structure uniting teachers of different status and discipline.

(8) The GHS institutions did not provide "cheaper" education (expenditure per student; see Appendix, Table 6).

(9) Presently the GHS are preoccupied with gaining recognition comparable to that of traditional universities ("academic drift").

3. Implementation, a New Research Area and Policy Analysis Approach

It is surprising to note that researchers such as Cerych and Teichler, otherwise quite cautious in comparing educational systems, adapted so freely in their European study a methodology which emerged from the American experience with its American federal policies, i. e. using the implementation analysis. Previously, in Germany, social reforms were analysed by using constraint analysis or program evaluation. Constraint analysis shows how an excellent idea failed because of unfavorable circumstances. Program evaluation, on the other hand, assesses the success of a plan/program by looking at its outcomes without being concerned with the reasons for success or failure. Both approaches mirror the planning euphoria of the 1970s when it was believed that social change could be planned, that an excellent plan would more or less automatically produce successful results. Thus, only outcomes were evaluated by contrasting them with the stated goals.

Implementation approach, however, views the outcome as the result of a bargaining process among the various actors. It emphasizes the p r o c e s s of carrying out a policy and explores the reasons for the deviations from the original goals. By doing so, the approach assumes that goals will "naturally" change during the process of program realization. Moreover, they could prove that changes belong to the nature of the reform process. Changes are "healthy" results of bargaining, of mutual adaptation.

While in the U.S. most implementation studies showed how federal reforms failed because of too grand goals, and thus criticized the government, in Germany, it seems that the use of implementation analysis has provided a relief function for engaged Social Democratic educational reformers. These reformers have been able to show that the governmental plan was after all not that bad nor totally unsuccessful.

Renate Mayntz (1980) shows how the development of implementation research is linked to the political reform era of the late 1960s:[10]

"As long as one d o u b t s whether the government really intends to develop social reforms and whether it is willing and capable to pursue its proclamations, social scientists will focus on the c o n t e n t of policies and will analyze the political arena in which these policies were adopted. But once they trust the government's good intentions (as it was the case in the Johnson era with the 'war against poverty' or the

social-democratic coalition in Bonn around 1969), the research interest shifts to the r e a l i z a t i o n of the well intended reforms. Then researchers are motivated to show the observed and anticipated failures and the final effects of the policy. This historical context of the implementation research explains first why reform studies focus on political reform programs with relatively clear goals rather than the execution of programs involving routine tasks by governmental bureaucracy. Secondly, the historical context accounts for the 'top down' view, the concentration on the government and the policy rather than on target groups or the social environment for which the reform was designed."

Mayntz goes as far as to state that political programs which aim at social reforms allow the social scientist a positive identity with the reform. Thus, research studies show an affinity to bureaucratic models and are centered around the analysis of control strategies from the federal to the local level.

In the following section I will briefly provide an overview of the fast growing implementation literature since the publication of Derthick's New Towns in Town (1972) and of Pressman and Wildavsky's Implementation (1973).[11] I do not intend to be exhaustive in the literature review but rather wish to present a systematic framework. The literature on implementation can be grouped into three distinct approaches and models according to their underlying assumptions about organizational behaviour and planning strategies:

(1) the planning-control approach or managerial model,

(2) the interaction approach or bargaining model,

(3) the evolutionary approach or learning model.

In this paper only the conceptual framework of Renate Mayntz (1980) will be described in detail since her latest work on implementation has not yet been translated.

3.1 Planning-Control Approach or Managerial Model

This approach expects policies to have relatively clear goals. It examines how much of these goals has been realized, focusing on the program delivery process a f t e r the policy formulation. Success of a policy is measured against the policy's objectives. In order to plan for a successful implementation, factors influencing goal fulfillment are investigated and the identification of these factors results in the design of appropriate control

strategies. Consequently, the central issue of this research direction is the analysis of the relation between goals and outcomes and of the forces which bring about either a gap or an identity of the outcomes with the expectations. Majone and Wildavsky (1979)[12] point out that although this model recognizes an implementation failure due to an infeasible plan, it fails to acknowledge that constraints are only discovered during the implementation phase.

Sabatier and Masmanian (1979, 1980)[13] are representatives of a planning-control approach to implementation in identifying three variables - tractability, statutory and non-statutory - which affect the achievement of statutory objectives. They suggest effective policy implementation through tight management control mechanisms (incentives and sanctions) by administrators. Their conceptual framework is based on a rational decision making model within a bureaucratic process.

This view dominates among the participants in the symposium on "Successful Policy Implementation" (published in Policy Studies Journal, 1980).[14] The authors overemphasize the capability of law and ordinance to change the surrounding reality. They stress central regulation and control of hierarchies. They seem to view "independence" and "discretion" as a potential threat to successful implementation.

Elmore (1978, 1980[15]) labels this top-down view as "forward mapping." Obviously he sees the federal government as the top, as the starting point of a chain of steps and the target groups as the bottom, as the very end. From this end the policy analyst should design the implementation strategies backward to the top, the actual beginning. In his 1980 article he argues that forward mapping "reinforces the myth that implementation is controlled from the top." He criticizes 'forward mapping' as an analytical strategy which treats only a narrow range of possible explanations for implementation failures."[16] As an alternative to the planning-control approach he proposes 'backward mapping,' a non-hierarchical, informal, bargaining model.

His argument could be more forceful had he been thoughtful in his choice of words. "Forward mapping" suggests that the top is the actual beginning, the starting point of ideas and actions, while the target groups are backwards. His language still implies hierarchy and formality.

3.2 Interaction Approach or Bargaining Model

The interaction approach views policy formulation and program implementation as a s i n g l e bargaining process with different actors at different levels. Each actor uses his power to influence the outcomes. Thus, the original goals inevitably change. Therefore, success of a policy is not measured by comparing outcomes with the intentions of policymakers but is regarded in all aspects as conditional. This model minimizes the importance of goals and plans.

Bardach (1977)[17] has been among the first writers to conceive of implementation as the strategizing behaviour of various actors. Van Horn (1979)[18] carries further this notion of tension and bargaining between different actors and develops a coherent framework categorizing influential factors at federal, state and local levels into three sets of variables (policy standards and resources, national policy environment, local policy environment). He views the relationship between federal, state, and local elected officials as shaping both the content of the policy and the events occuring during the implementation phase. However, he does not identify which actor controls which variables.

Similarly, Berman (1978, 1980)[19] draws attention to the behaviour of different actors in different implementation settings. He distinguishes between a macro (federal) and a micro (local) level of implementation. Yet he mainly focuses on the micro level arguing that the outcomes of a social policy depend on local delivery. In his view a policy is successful when both the local organization and the policy mutually adapt to each other during the three phases of micro implementation (the mobilization, delivery implementation and institutionalization phases). Referring again to Elmore (1980) we can consider Berman's accentuation of micro-implementation as 'backward mapping'.
Elmore, who emphazises more the prescriptive side of implementation research, takes the micro-approach one step further and suggests starting the analysis at "the very last stage, as the specific behaviour of the lowest level of the implementation process that generates the need for a policy." [20]

Browning, et al. (1978)[21] and Weatherly and Lipsky (1977)[22] would agree with Elmore's focus on the non-hierarchical, the informal, the dispersal of control and the bargaining situation. Their theory of the street-level bureaucrats states that the coping patterns (routinizing and simplifying) of these men

and women at the policy delivery level substantially determine implementation.

Majone and Wildavsky (1979) disagree with the idea of the interaction approach "that the function of the implementation process is to satisfy the psychological and social needs of the participants, regardless of the actual policy results." They correctly indicate its weakness, saying, that "we feel the emphasis on consensus, bargaining and political maneuvering can easily lead to preconceptions that implementation is its own reward."[23] However, they indicate that the model "carries interesting evolutionary overtones." This leads them to propose their viewpoint of evolutionary implementation as a compromise.

3.3 Evolutionary Approach or Learning Model

The evolutionary approach declares that program realization is a process in which modifications of the original program continuously take place. Changes occur because (a) the actors consider them as necessary in certain situations or (b) conflicting goals demand a change. This approach assumes the initial plan is always incomplete and thus requires modification along the way during implementation. In the process, individuals attempt to learn new behaviour and the organization tries to learn how to change its coordination, control and information system. Success is relative. It depends on which viewpoint we take.

Majone and Wildavsky, the major representatives of the evolutionary approach, cope with the issues of complexity, confusion, haphazard development, irrationality and uncertainty by indicating that events continually occur and influence each other. The realization of a plan depends both on its intrinsic qualities (the underlying theory upon which policy problems are conceptualized) and on external circumstances. Accordingly, implementation influences policy, just as policy influences implementation. Wildavsky and Majone suggest that successful implementation must rely on l e a r n i n g, on "know how," on invention rather than on instruction and command. Discretion as a strategy is "both inevitable and necessary."[24]

But what do we really know about learning? We know, for example, how a person can learn a foreign language. But what is necessary to make policy makers and implementers willing to learn? Under what conditions do they learn best with-

out control and sanction? Can implementation learning be institutionalized? Do organizations learn?

- As plausible as the evolutionary compromise approach appears it does not provide us with a clear framework for explanations.
- The sisyphus work of searching for analysis and action strategies must be repeated in every single case, over and over.

3.4 An Analytical Paradigm for Implementation Research

In her 1977 article "Die Implementation politischer Programme,"[25] Mayntz defines implementation as the execution of laws or the accomplishment of programs. At this time she saw implementation as separate from program formulation and presented three factors that crucially influence the implementation process:

- characteristics of the policy;
- characteristics of the implementation agencies;
- characteristics of the target groups.

During this early phase of German implementation research, only public administration organizations were identified and analyzed as policy implementers. By 1980, as a result of several research projects on implementation,[26] the definition was modified and the analytical paradigms were altered and expanded. "We speak of implementation when political goals are present and actions are intentionally undertaken for the realization of these goals."[27] Mayntz's modified analytical categories are as follows.

(1) The Different Types of Policies:

- There are d i s t r i b u t i v e and r e g u l a t o r y policies.
- There are different i n t e r v e n t i o n s t r a t e g i e s (laws, financial incentives, promotion, process control mechanism, e.g., codetermination laws).
- Policy g o a l s are often vague and contradictory.
- Programs differ in s c o p e (time, content, local versus federal).
- The more o p e n the design of a program the more likely will be the learning and adaptation process.

(2) The Implementation Structure:

German researchers distinguish between the implementation structure and the implementation field. The implementation structure is the structured system in which the implementers operate. Contrary to the earlier view where implementers are always governmental agencies, in the recent paradigm these are professional associations or independent local groups. But in most cases, they are organizations and not individual persons. The implementation structure is characterized by a non-hierarchical network configuration in which the actors know each other through former interactions. Consequently, previous conflicts as well as accumulated 'goodwill' will be transferred to the new program. Therefore, we have to distinguish between the formal and informal relations among the implementers. In addition, this network of organizations is more flexible, more adaptable and more clientele-oriented than the traditional governmental bureaucratic organizations.

(3) The Implementation Field:

The implementation field is the arena in which interest groups and the target population act. It is characterized by unforeseen elements which influence both the goals and the goal realization process. These events are stimulated by the attitude of the interest groups and target population toward the state and their acceptance of or opposition to state intervention.

These redefined variables are closely connected with the modified paradigms.

(1) Goals become more and more clear during the implementation process. An 'open' program creates a learning situation for all actors.

(2) The hierarchical-bureaucratic organization model does not fit the implementation reality. There are always non-governmental, non-hierarchical organizations which function as implementers. Besides, the state and the local level operate in certain fields with a high level of autonomy. In addition, administrators do not always behave in conformity to the goals. They are charged with the fulfillment of multiple functions and try to use the given resources or discretion for their own organizational purposes. The administration itself is under pressure to succeed and has only limited

tools to force the local level into changed behaviour patterns. Thus, the administration tries to avoid conflicts. But again, the behaviour of both the administration and that of the target group depend on the c o n - t e n t of the policy.

(3) The mechanistic model of a planning-control approach must be exchanged for an interaction model functioning within a complex system. And yet, as Mayntz indicates, a real change of direction in the implementation research does not seem to have occured. Only the focus has widened and the analytical paradigms of the bureaucracy theory and decision making theory in political science have proven to be inadequate for the reality. Indirectly, the r a t i o n a l i s t i c concept of planning became revised. Consequently, implementation analysis cannot clearly define success or failure of a policy. Success or failure can only be judged from an overall system's view of whether policies contribute to the long-term solutions of social problems or to the adaptation to a changed environment.

Mayntz admits that a theory still needs to be developed. It should not be an isolated theory of implementation alone, but rather must be part of a **"Theorie politischer Steuerung der Gesellschaft"** (a theory of political 'self'-regulation).

In summary, the literature on implementation illustrates a wide range of different opinions. On the one extreme, hierarchical control, central regulation, ability of the statute to structure implementation, the belief in the excellence of a policy, and " f o r w a r d m a p p i n g " are emphasized. And, on the other extreme, dispersal of control, discretion, non-statutory local variables, social forces which capture and change the forces and " b a c k w a r d m a p p i n g " are accentuated. These views range from an o p t i m i s t i c belief in the "rationale" of the implementation process to a more s c e p t i c a l uncertainty about the complexity and multiplicity of the process.

What approach does the implementation study of the **Gesamthochschule** adopt?

4. On Choosing an Implementation Approach

The authors Cerych, Neusel, Teichler, and Winkler select an 'open approach' for the analysis. They claim to have applied neither a strict planning-control orientation nor a strict evolutionary approach but rather to have collected information according to a list of 'influential factors' taken from available literature. Yet, looking at the structure of their study, a strong leaning towards the Sabatier/Masmanian rational decision-making model is obvious.[29]

The researchers choose to focus on the course of events of the o f f i c i a l sanctioned plans, announced in the 1970 version of the Federal Framework Law for Higher Education and passed in 1976. They compare the present achievements with the official federal and state goals and analyse the differences in terms of potential influential factors collected from the available literature. These clusters of factors are:

- the impact of changed socio-economic conditions and educational politics between 1970 and 1980 on the reform program;
- governmental implementation strategies;
- decision-making structures and processes within the GHS and between the state government, the universities and GHS;
- the influence of individual actors or groups of actors;
- the importance of financial resources.

The authors proceed in five steps:

(1) They describe the context of the **Gesamthochschul-idea**.

(2) Then they elaborate on the official goals and expectations.

(3) In the next step, they survey the actual achievements (6 existing GHS) and identify the reasons for these achievements.

(4) Then they compare the factors having led to the implementation of the GHS with those factors having caused the non-implementation of GHS. They describe those situations in which the government at one point had decided to establish the institutions and where some efforts were undertaken for launching the reform. (Here, we find Mayntz's definition of implementation as having these two components.)

(5) And finally they compare their identified factors for the successful implementation in the two states (Nordrhein-Westfalen, Hessen) with each other.

With this procedure they hope to answer the question whether the factors identified as influencing the implementation process of social policies are identical with those relevant for the GHS reform.

Only six **Gesamthochschulen** are studied and not the eleven as we can read in Peisert (1979) (see Appendix, Table 1). These are the six GHS which comply with the basic concept of the reform: (a) accepting students from academic secondary schools and vocational high schools and (b) offering different degrees within one discipline. Five GHS (Duisburg, Essen, Paderborn, Siegen and Wuppertal) are in the state of **Nordrhein-Westfalen** and one, Kassel, in the state of **Hessen**. **Bayern** founded four comprehensive institutions which connected different types of courses under one administrative roof but did n o t establish any c o o r d i n a t i o n or i n t e g r a t i o n of corresponding non-university and university courses. Therefore, these institutions are excluded. (In the meantime some of them have already given up the name **Gesamthochschule**.)

The research group proceeds by focusing on a detailed description of goals and outcomes and on the forces which bring about either a gap or an identity of outcomes with the expectation. We recognize the close application of the planning-control model.

However, when it comes to the assessment of the outcomes the writers are aware that the evaluation is highly delicate and will differ totally according to the perspective adopted. And I would add: A decision about what is 'success' and what is 'failure' reveals more about the value of the researchers than about the reality of the object under study. Different interpretations of the present achievements are taken into account in the German publication. Two separate final analyses are presented: an i n s i d e r view by the German research team, all from the Center for Research on Higher Education and Work at the Comprehensive University of Kassel and an o u t s i d e r view by Ladislav Cerych of Paris, the director of the eight country comparative study. Cerych interprets the results in the light of the huge discrepancy between too ambitious and conflicting g o a l s and their limited f u l f i l l m e n t s . For

him the results of the GHS policy have been rather limited. He writes: "No more than six such institutions approximating to the pattern envisaged at the outset were created. ... Though nowhere formally stated, the GHS enterprise as initially conceived is almost certainly at an end."[30]

His assessment is fully based on the application of the planning-control concept and not, as the authors claim, on a "mixed model" of the planning-control approach and the evolutionary or learning model. Cerych neglects the learning process which the people involved undergo. To illustrate the point, I refer to the Pressman/Wildavsky study of the Oakland Project which is described in their book Implementation (1973). Two of the key people of the Economic Development Administration's employment effort in Oakland later became very influencial in increasing minority employment. In their capacities as Board President of the Oakland port and as Major of the City of Oakland they could apply what they learned during the implementation of the Oakland Project.

I am not arguing that participation in the project caused them to seize a particular office - although they may have - I am arguing that people acquire during the implementation process personal resources which can lead to the actual goal fulfillment later than rationally planned.

Cerych also disregards the fact that any change in the educational system takes a long time to show its effect. Changes in an entire system involve changes in personal attitudes and behaviour and in organizational behaviour. He minimizes the 18 % participation of students from working class backgrounds; however, considering the German university has only 10 % working class population, 18 % is significant.

Neusel, Teichler, and Winkler, unlike the planning-control model, evaluate the results in terms of the s i t u a t i o n b e f o r e and a f t e r the existence of the GHS. Thus, they avoid taking official goals as the point of measurement. The German team interprets the results in the light of Mayntz's analytical paradigms: success or failure can only be judged from the overall view of the system. They assess the establishment of the comprehensive universities as a successful step towards a more diversified system of higher education. Those are a n e w t y p e of higher education institution in Germany with differentiated and diversified course offerings. They are more adapted to the regions and they function

as agents of curricular reforms for a l l higher education institutions.

By focusing on the situation before and after the existance of the GHS they broaden their frame of reference, taking into account the fact that goals change during the implementation process. In this respect they clearly apply the evolutionary model.

We can see how the choice of a particular approach determines the evaluation of success or failure, and one might argue that the researcher's choice depends on his/her knowledge of the subject as well as his or her attitude towards the policy as Mayntz has stated in her article. So far, the literature does not provide us with guidance choosing the right analytical approach for the content we study. Considering the choice of the analytical tool for research on higher education reforms, two hypotheses might be drawn from the study. Firstly, an o u t s i d e r though very knowledgable about higher education, may be tempted to opt for the clearest navigable way through the multi-facet field of the German federalistic higher education structure. Thus, as a starting point, he might more easily consider the ideal model of implementation, assuming clear goals and rational strategies, as against a more "messy" analysis of networks of institutions and their historical relationships to each other.

Secondly, the German educational system is well known as a classical hierarchical system in which university governing statutes and even individual faculty appointments are subject to formal state approval. This fact might tempt an outsider to decide on a top-down planning-control approach while insiders, being au courant, can more easily take up the interaction approach functioning within a complex system. They know the networks among the different organizations and their relationships. They are familiar with the past interaction patterns of organizations and their present adaption to a changed environment. And therefore, success and failure of a policy can look different for an analyst coming from the 'inside' or for one coming from the 'outside.'

5. What Do We Learn for Future Implementation?

Implementation Analysis claims not only to be a method explaining failures or success of p a s t policy programs but also to be a tool for future policy implementation. As presented earlier in this paper each of the published implementation studies has tried to identify the major factors influencing the outcome of a policy. Similarly, in the German implementation study, Cerych and Sabatier identify variables which are influential for success or failure of a program. These are:

- nature of the reform goals;
- degree of inconsistency of the proposed reform goals with the established rules of the system;
- sufficient financial resources;
- degree of support by the implementers;
- degree of support from other actors and groups affected by the reform;
- the changing environment.

Here, I will only focus on the motive of the g o a l s and the f i n a n c i a l s u p p o r t and ask what we can learn from the study with regard to future higher education reform in Germany. According to Cerych the large discrepancy between intention and outcomes of the German **Gesamthochschul-Reform** is due to too large and conflicting goals. Thus, can we conclude that smaller goals, conforming more to the dominant educational policy trend are more likely to be implemented?

The study itself does not allow us to draw such conclusions. The more m o d e s t GHS plan, a c o o p e r a t i v e university, was n o t implemented. The cooperative GHS model suggests an institution where each principal constituent unit (university, teachers training college and technical colleges) maintains its autonomy. These units develop a loose association, with consultative links encouraging easier student transfer possibilities. This model was favored by the CDU/CSU parties.

All six existing universities are i n t e g r a t e d types of GHS. They provide study patterns corresponding to both the academic (long-cycle) and vocational (short-cycle) types of higher education. They have extended access to secondary school leavers who would formerly have been denied it.

(This was favored by the SPD/FDP parties.) In this case, the more far-reaching program was implemented. On the other side, we have learned that one of the original goals, according to which all German higher education was to have been organized into GHS-type institutions, has not materialized. Consequently, we might assume a middle-of-the-road innovation must be the solution. But, because of the failure of the GHS to become the model for all higher education institutions, the **Gesamthochschulen** face many pressures now. These are due to the fact that the German higher education system is characterized by total uniformity in terms of status. There is no hierarchical pyramid of more or less prestigious institutions. Thus, it is impossible for some institutions in the system to have a changed mission and purpose without affecting all others. Therefore, the GHS are now confronted with a severe pressure either to adapt themselves completely to the university or to the **Fachhochschule**. A middle-of-the-road solution, a new type of organization for some higher education institutions, causes extreme problems. Besides employees, the employers preserve a distinct difference between the university and the **Fachhochschule**. Graduates with a short-cycle diploma from the GHS are placed on the same posts as graduates from the Fachhochschule and consequently paid the same salary as their colleagues with a Fachhochschul-diploma. Consequently, the majority of the students are striving for the long-cycle education, that of gaining a university diploma. If a l l higher education institutions had changed the employer could not discriminate against the graduates of the GHS.

As a result, we learn from the study that it depends on the c o n t e n t of the reform whether goals must be small or large and whether they must be clear or vague. In the summary chapter of the English publication Cerych comes to the conclusion that vague and far-reaching goals were virtually unavoidable because of the need to reach political consensus for the GHS reform. So we are back where we started. What lessons can we learn regarding the nature of the goals for future successful implementation? I am afraid we might have only become more sensitive towards the complexity and the nature of goals, but we do not receive any specific clues for future, more successful implementation of German higher education reform.

In regard to the f i n a n c i a l resources, many studies on implementation including that of Cerych and Sabatier, argue that lack of sufficient financial support hinders the implementation of a reform. But in the German

case, financial resources were never a problem. On the contrary, a worsening of the economic situation might have been an incentive to establish many GHS, since they were designed to bring about a coordinated and therefore more efficient organization and to improve resources (laboratories, research facilities) for the Fachhochschulen and teachers training colleges. But as the study indicates the GHS reform was stopped b e f o r e the oil crises and b e f o r e reduced governmental spendings for the higher education sector. What can we learn for future implementation? Sufficient financial resources might not always support successful reform implementation, and scarce resources might not always prevent the realization of a reform program. And where do we turn from there?

6. Learning from History

It can be argued that we might get some guidance for predicting the outcomes of higher education reforms in Germany from a view beyond goals and strategies.

We can learn from the past history of reforms in education. By this I mean we should know the history of the educational institutions of the country under study. That includes both the history of the different sectors of a country's educational system, and the history of the interaction among the different sectors.

In the case of Germany, analysts of higher education need to be knowledgable at least about the secondary system and the advanced vocational schools. Both are the feeder schools for the university. Secondly, they should know about the history of the relationships among the federal government, the eleven states and the university. Policy analysts are trained in organizational theory which tells us that organizations are inert. The larger the institution the longer it takes to change it. Thus, the analysts can turn to historians of education as a source of advice.

For example, Fritz Ringer, an historian and sociologist of education writes in Education and Society in Modern Europe (1979)[31]:

"The time has come to move beyond monographic studies of individual institutions. For educational systems are true systems. Their parts are interlinked. No history of the German technical institutes can neglect the non-classical secondary schools. ... Faced with the apparent disappearance of certain curricula or groups of pupils after some new piece of legislation, the careful historian is bound to rediscover them under another name or in a neighboring compartment within a nearby unchanged overall structure."

Whenever he talks about the "history" or the "historian" we can substitute analysis or policy analyst.

In the case of the German **Gesamthochschule** we find an educational reform, just prior to the GHS, with a very similar fate: the reform of the **Gesamtschule** (comprehensive high school, in the following refered to as GS). It took place at the secondary level. The reform goals were very similar to those of the GHS, except designed for one level lower in the educational system: to bring together and to associate hitherto separate types of the German secondary educational level. (**Gymnasium, Realschule** and **Hauptschule**) The objectives led to two models of Gesamtschulen: the cooperative and

the integrated comprehensive GS. The GS reform practically mirrors the GHS reform in its underlying motivations and visible outcomes. We can describe the results as follows: now, the GS is accepted as a separate type of secondary school. It has ceased to be considered t h e model for all German secondary schools. It is the far-reaching concept which has been more successfully implemented.

We find GS in SPD/FDP governed states. The integration of teachers from the different types of schools into one staff body was unsuccessful (different salaries). A higher percentage of working class children attend the GS as compared to the same level at the **Gymnasium**. The employers treat GS-graduates like **Realschul**-graduates and not like pupils with 5 years of **Gymnasium**.

It seems obvious that conclusions can be drawn from the **Gesamtschul**-experience for the outcomes of the **Gesamthochschul-Reform**.

In the recent German history of higher education we have another example of the relationship between the federal government and the states, the states among each other, and the states and the university: the concept of a federally initiated, centralized, distance study (**Fernstudium im Medienverbund**). Between 1967 and 1973 members of the University Association for Distance Study and representatives from the state governments designed a higher education reform for distance study. Its motivation was to bring about reform of the university curriculum, to improve the capacity and performance of higher education, and to open the university to formerly excluded groups of society. This plan failed to reach consensus among the 11 states, and was heavily boycotted by the universities which feared the lowering of academic standards and an increase in federal control over higher education. Today, the only visible evidence of the reform is the University of Distance Study in Hagen, Nordrhein Westfalen (**Fernuniversität**).

Policy analysts in Germany asked to design a better GHS implementation might be more successful in taking what can be learned just from the two historical examples within the German education system than from a focus on the tight scope of goals and the matching strategies. It seems worthwhile to enlarge the vision and to widen the time perspective when we want to use implementation analysis for predictive and presciptive purposes.

One final reflection about the origin of the implementation analysis.

The different implementation models are developed in the US by policy analysts. (Wildavsky founded the School of Public Policy at the University of California, Berkeley, where Bardach is on the faculty and where Berman and Elmore taught as visiting professors.) This newly established professional school socializes its students to intervene as outside experts in any kind of organizational political problem. They are called in by decision-makers for a limited time. Being an outsider, always short of time, and pressed for demonstrable success, they rely on standard informants, easily collected data, and short-time assumption. They work ahistorical because they have to prove that their work makes a difference. This development might explain in some way why the implementation analysis focuses narrowly only on one sector of a system and on a relatively short time span. And being so "objective", the policy analysts devise a method which has no taxonomy, no hierarchy of goals.

In borrowing this method, Cerych treated the different goals of the GHS as if they were all equal. For example, the difficult task of providing a link between science and practical experience is evaluated on the same level as the GHS goal providing more effective student counseling and guidance. Or, the interregional equalization of education, the increase of working class students, another goal of the GHS, is treated as if it were equal to the more efficient use of higher education facilities. It is a travesty to treat all educational goals as equal.

NOTES

1. Cerych, L., Neusel, A., Teichler, U., and Winkler, H. (1981). Gesamthochschule - Erfahrungen, Hemmnisse, Zielwandel. Frankfurt

2. Cerych, L., Neusel, A., Teichler, U., and Winkler, H. (1981). The German Gesamthochschule. Amsterdam

3. Ibidem, p. 6

4. Krüger, and Wallisch-Prinz (1974). "University Reform in Progress. The Current Debate in West Germany." p. 177.

5. Denison, E. (1962). The Sources of Economic Growth in the United States and the Alternative Development. New York

6. Schulz, T. (1962) Education and Economic Growth.

7. Becker, W. (1977). Barriers to Higher Education in the FRG. JCED, New York

8. Political Parties in Germany:
The major political parties in the Federal Republic of Germany use initials as abbreviations in the following way:
CDU: Christian Democratic Union
CSU: Christian Social Union
FDP: Free Democratic Party
SPD: Social Democratic Party
The CSU is a Bavarian party that in effect represents the CDU in Bavaria; therefore the CDU/CSU are for practical purposes considered regular partners.

9. Cerych, et. al. (1981). Amsterdam, pp. 55-62.

10. Mayntz, R. (1980). "Die Entwicklung des analytischen Paradigmas der Implementationsforschung," Implementation Politischer Programme. Königstein, p.1.

11. Derthick, M. (1972). New Town in Town. Washington, D.C.
Pressman, J., and Wildavsky, A. (1979, sec. ed.). Implementation. Berkeley

12. Ibidem, p. 180.

13. Sabatier, P., and Masmanian, D. (1979). "The Conditions of Effective Implementation: A Guide to Accomplishing Policy Objectives," Policy Analysis, Vol. 5, Fall 1979, pp. 481-504.
Masmanian, D., and Sabatier, P. (1980). "The Implementation of Public Policy: A Framework of Analysis," Policy Studies Journal, Vol. 8, No. 4, 1980, pp. 538-560.

14. Policy Studies Journal (1980), Vol. 8, No. 4.
(Baum, L., Rosenbaum, N., Bullock, A., Browning, R., et. al., Goodwin, G., Moen, Ph.)

15. Elmore, R. (1978).
"Organizational Models of Social Program Implementation,"
Public Policy, Vol. 26, Spring 1978, pp. 199-216.
Elmore, R. (1980)
"Backward Mapping: Implementation Research and Policy Decisions,"
Political Science Quarterly, Vol. 94, No. 4, pp. 601-616.

16. Ibidem, pp. 603-604.

17. Bardach, E. (1977).
The Implementation Game. MIT Press, Cambridge

18. Van Horn, C. (1979).
Policy Implementation in the Federal System. Lexington

19. Berman, P. (1978).
"The Study of Micro and Macro Implementation,"
Public Policy, Vol. 26, No. 2.
Berman, P. (1980).
"Toward an Implementation Paradigma of Educational Change."
Draft, NJE, Santa Monica

20. Elmore, R. (1980), op. cit., p. 604.

21. Browning, R., Marshall, D., and Tabb, D. (1978).
"Implementation and Political Change: Sources of Social Variations in Federal Social Programs."
Papers presented for Workshop on Policy Implementation, Pomona College, Nov.

22. Weatherly, R., and Lipsky, M. (1977).
"Street-Level Bureaucrats and Institutional Innovation: Implementing Special Education Reforms,"
Harvard Educational Review, Vol. 47, No. 2.

23. Majone, G., and Wildavsky, A. (1979).
"Implementation as Evolution," In:
Pressman, Wildavsky (1979).
Implementation, p. 181.

24. Ibidem, p. 189.

25. Mayntz, R. (1977).
"Die Implementation politischer Programme. Theoretische Überlegungen zu einem neuen Forschungsgebiet," Die Verwaltung, Vol. 10, No. 1, Berlin

26. Mayntz, R. (ed.) (1980).
Implementation Politischer Programme, Königstein

27. Ibidem, p. 5

28. On intervention strategy: input, output and process controlling strategies see also:
Benveniste, G. (1980).
"Implementation and Intervention Strategies: The Case of PL 94-142,"
Stanford-Berkeley Seminar on Law, Governance and Education.

29. Sabatier spent his sabbatical in Europe (Bielefeld) and worked with the project.

30. Cerych, et. al. (1981). Amsterdam, pp. 58.

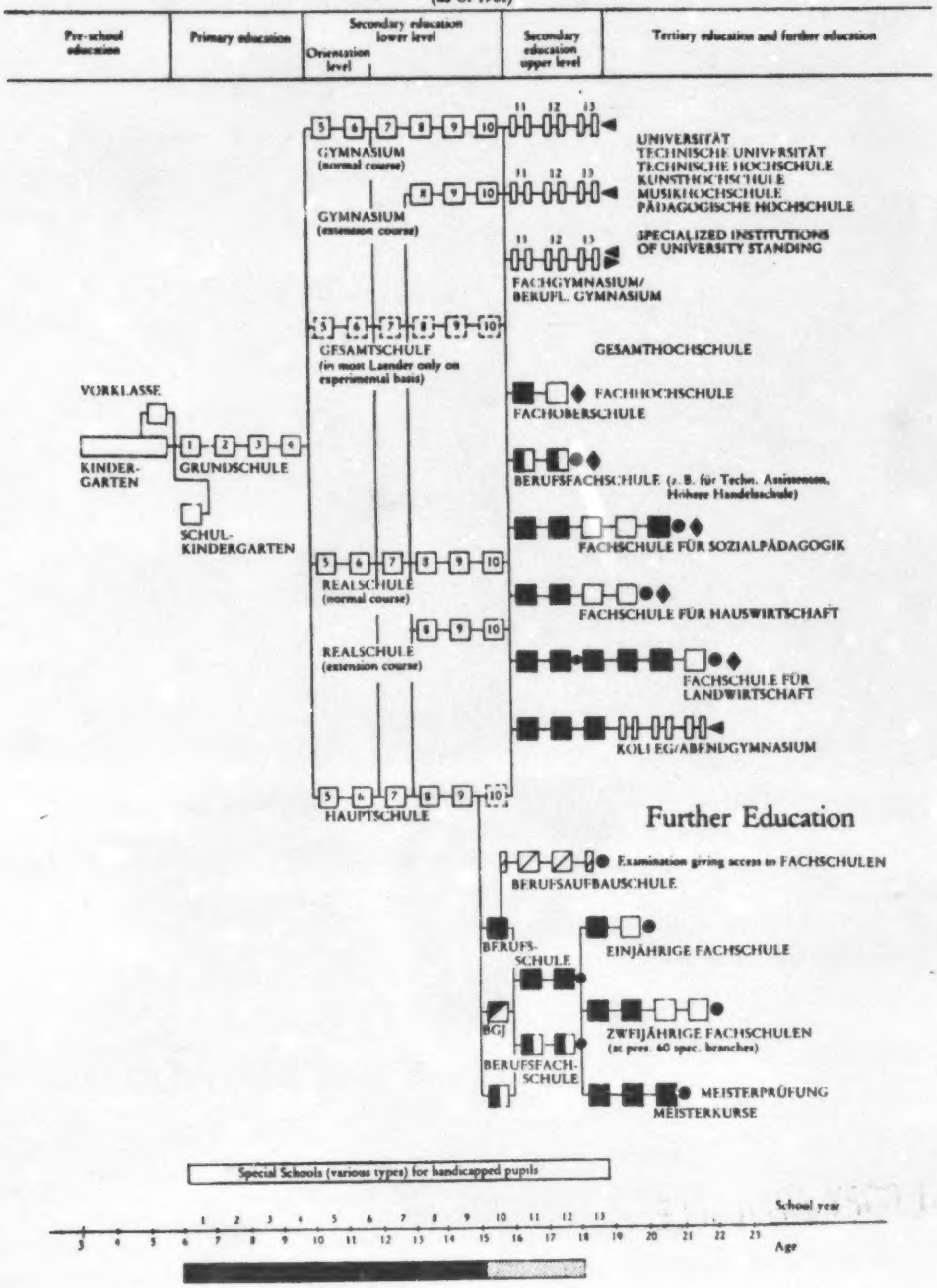
31. Ringer, F. (1979).
Education and Society in Modern Europe. Indiana. p. 1.

APPENDIX

Figure 1:

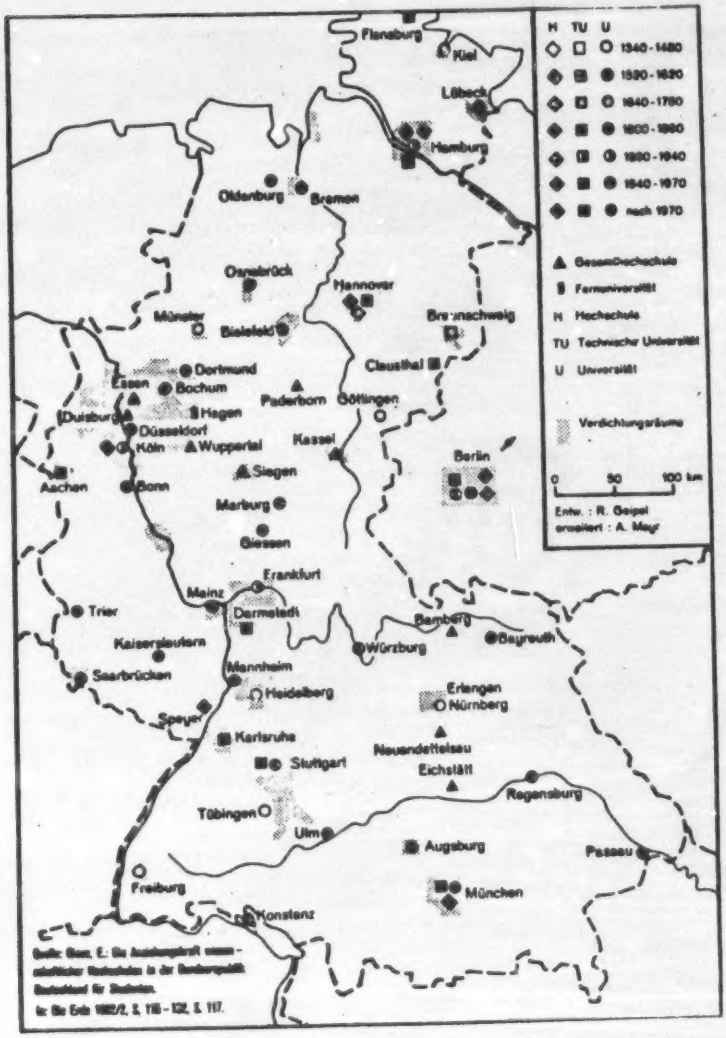
The Structure of the Educational System in the Federal Republic of Germany

(as of 1981)



BEST COPY AVAILABLE

Figure 2: German Institutions of Higher Education



BEST COPY AVAILABLE

Figure 3:

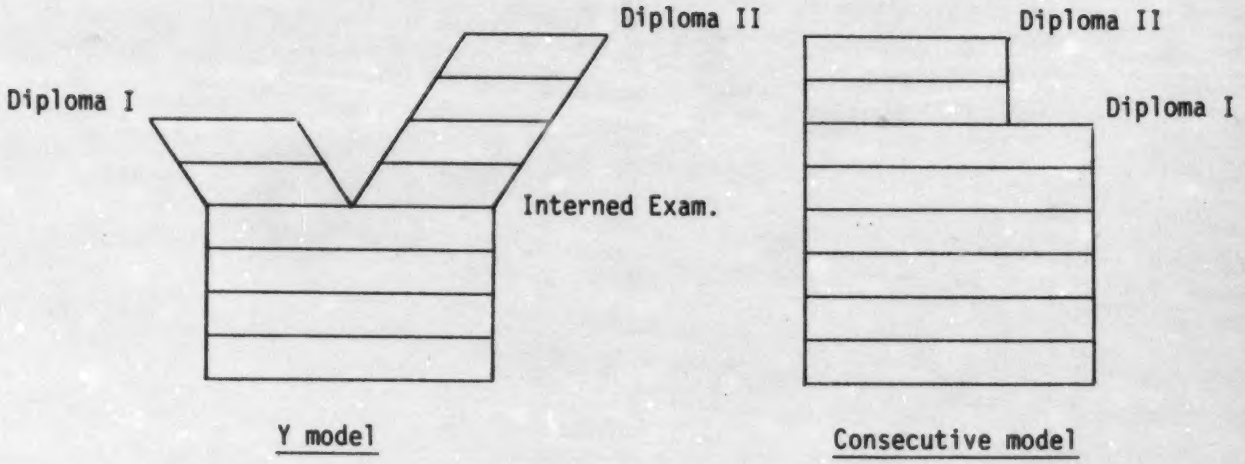

Diploma II
Diploma I
Interned Exam.
Y model
Diploma II
Diploma I
Consecutive model

Table 1: German Institutions of Higher Education, 1950 - 1980

Higher Education Institutes	1950	1960	1970	1975	1977	1980*
Universities	31	33	40	49	50	54
Comprehensive Universities	--	--	--	11	11	6**
Teachers Colleges	78	77	32	33	31	13
Fine-Art Colleges	18	25	27	26	26	26
Technical Colleges	--	--	98	136	136	95
TOTAL	143	152	211	266	265	229

Source: Peisert, H. and Framhein, G. Das Hochschulsystem in der Bundesrepublik Deutschland. Stuttgart, 1979, p. 21.

*Source: Der Bundesminister für Bildung und Wissenschaft (1981). Studenten an Hochschulen 1975-1980. Bonn

**Excluding the Bavarian cooperative GHS.

Table 2: Students at German Higher Education Institutions by Types of Institutions and by Disciplines, 1977/78 (Per 1,000 students)

Disciplines	Universities, Teachers Colleges, Fine-Arts Colleges		GHS		FH		Total	
	thou.	%	thou.	%	thou.	%	thou.	%
Philology, cultural sciences, sport	240,0	34.8	14,5	25.8	2,3	1.4	257,6	28.2
Economics, social sciences	143,0	20.7	15,5	27.6	57,8	34.9	216,3	23.7
Math, natural sciences	127,9	18.5	7,2	12.8	2,9	1.8	138,0	15.1
Engineering	68,8	9.9	14,0	24.9	87,7	53.0	170,5	18.7
Medicine, dental medicine, veterinary medicine	64,5	9.3	1,3	2.3	--	--	65,8	7.2
Agronomy	16,3	2.4	0,9	1.6	6,0	3.6	23,2	2.5
Art	30,3	4.4	2,8	5.0	8,7	5.3	41,9	4.6
TOTAL	691,8	100.0	56,2	100.0	165,4	100.0	913,3	100.0

Source: Bundesminister für Bildung und Wissenschaft. Grund- und Strukturdaten 1978. Bonn, 1978, p. 111.

Table 3: Distribution of Students (in %) in GHS by Type of Courses and Institutions (78/79)

GHS	Integrated courses	Teacher training	Short courses	University courses
NRW	34.9	32.8	21.4	10.9
NRW[1]	37.9	35.0	20.6	6.5
Essen	28.3	28.1	23.0	20.6
Kassel[2]	38.4	32.2	18.4	11.0[3]

Notes: 1) All GHS of NRW except Essen.

2) 1979/80.

3) Fine-Arts (7.3%) and miscellaneous.

Source: Der Minister für Wissenschaft und Forschung des Landes Nordrhein-Westfalen. Handbuch Hochschulen in Nordrhein-Westfalen. Düsseldorf, 1979.

and, GHS Kassel. Bericht des Präsidenten. Kassel, 1980.

Table 4: Students from Working Class Background at German Higher Education Institutions, Winter 1973/74

Universities	10%
Teachers Colleges	12 %
Gesamthochschulen	18 %
Technical Colleges	24 %

Source: Infratest. Hochschulbarometer, Befragung von Studierenden Wintersemester 1973/74, Zusammenfassung wichtiger Ergebnisse. München, 1974, p. 36.

Table 5: Social Origin of Students at the GHS Kassel and the University of Göttingen

Occupation of Father	Students GHS Kassel (WS 77/78)	Students University Göttingen (SS 77)
Independent farmer	10.5%	7.1%
Unskilled, semiskilled worker	9.1%	3.3%
Skilled worker	14.3%	9.8%
Employee in technical field (engineer, etc.)	20.4%	14.1%
Administrative staff in civil service	14.4%	15.9%
High civil service	15.3%	26.3%
Independent academic	2.3%	7.8%
Independent businessman	12.3%	14.1%
No profession/other	1.5%	1.6%

Source: Studentenwerk Kassel: Die soziale Lage der Studenten an der Gesamthochschule Kassel, WS 77/78. Kassel, 1978, S. 118.

Table 6: Expenditure on Higher Education (in millions of DM)

	1973	1974	1975	1976	1977	1978	1979
NRW	3,900	4,100	4,500	4,800	4,800	5,500	5,600
GHS of NRW	511	528	642	675	674	727	780
Hessen	1,139	1,168	1,374	1,424	1,479	1,534	1,627
GHS Kassel	40	59	59	61	75	83	90

Source: Data supplied by Wissenschaftliches Zentrum für Berufs- und Hochschulforschung an der Gesamthochschule Kassel.

BIBLIOGRAPHY

Becker, Willi. (1977). Barriers to Higher Education. International Council for Educational Development. Access to Higher Education, No. 2.

Benveniste, Guy. (1980). "Implementation and Intervention Strategies: The Case of PL 94 - 142." Paper presented at the Stanford-Berkeley Seminar on Goals, Governance and Education. October 1980.

Berman, Paul. (1978). "The Study of Macro- and Micro-Implementation," Public Policy, Vol. 26, No. 2.

Berman, Paul. (1980). "Toward an Implementation Paradigm of Educational Change." N.I.E., Draft.

Bundesminister für Bildung und Wissenschaft. (1975). Framework Act for Higher Education. (Hochschulrahmengesetz). Bonn.

Cerych, Ladislav. (1979). "Higher Education Reform: The Process of Implementation (Towards a Conceptual Framework)," Education Policy Bulletin, Vol. 7, No. 1.

Cerych, Ladislav. (1980). "Facts of Achievement and Failure in European Higher Education Reforms." Paper presented at Berkeley, December.

Cerych, Ladislav, Neusel, Aylâ, Teichler, Ulrich, and Winkler, Helmut. (1981). Gesamthochschule - Erfahrungen, Hemmnisse, Zielwandel. Campus, Frankfurt.

Cerych, L., Neusel, A., Teichler, U., and Winkler, H. (1981). The German Gesamthochschule. European Cultural Foundation Institute of Education, Amsterdam.

Derthick, Martha. (1972). New Towns in Town. The Urban Institute, Washington, D. C.

Dreschner, Bernd. (1981). "Education and Science - Gesamthochschulen," Bildung und Wissenschaft. Inter Nationes.

Elmore, Richard. (1979/80). "Backward Mapping: Implementation Research and Policy Decisions," Political Science Quarterly, Vol. 94, No. 4, pp. 601-616.

Fallon, Daniel. (1980). The German University. Colorado Ass. University Press, Boulder.

Geiger, Roger. (1978). "European Universities: The Unfinished Revolution," Comparative Education Review, June.

Hassel, Christine. (1979). "The Social Implementation of PL 94-142-Talent is Scarcer than Money." Position Paper 2, Berkeley, University of California, School of Education.

Horowitz, Irving. (1979). "Social Planning and Social Science: Historical Continuities and Comparative Discontinuities," Planning Theory in the 1980s. Rutgers.

International Association of Universities. (1972). Problems of Integrated Higher Education. An International Case Study of the Gesamthochschule. Paris.

Mazmanian, Daniel, and Sabatier, Paul. (1980). "The Implementation of Public Policy: A Framework of Analysis," Policy Studies Journal, Vol. 80, No. 4, pp. 538-560.

Krüger, Marlies, and Wallisch-Prinz, Bärbel. (1974). "The Current Debate in West Germany," Altbach, Philip (ed.). University Reform. Schenkman, Cambridge.

Mayntz, Renate. (1980). Implementation politischer Programme. Königstein.

Myrman, Yngve. (1980). "What Can Research on Implementation Contribute to the Implementation Researcher?" Working paper, University of Stockholm, Sweden, July.

Nerad, Maresi. (1973). "Das Fernstudium - mögliche Auswirkungen auf die Studenten." M. A. Thesis, I. Staatsexamen.

Nitsch, Gerhard, et al. (1965). Hochschule in der Demokratie. Luchterhand, Berlin.

Peisert, Hansgert, and Framhein, Gerhild. (1978). Systems of Higher Education: Federal Republic of Germany. ICED, New York.

Pressman, Jeffrey, and Wildavsky, Aaron. (1979). Implementation. University of California Press, Berkeley (sec. ed.)

Raith, Werner (ed.) (1979). Wohin steuert die Bildungspolitik? Campus, Frankfurt.

Ringer, Fritz. (1979). Education and Society in Modern Europe. Indiana University Press, Bloomington.

Ringer, Fritz. (1981). "On Segmentation in Modern European Educational Systems." Paper written in Berkeley, Spring.

Sabatier, Paul, and Mazmanian, Daniel. (1978). "Toward a More Adequate Conceptualization of the Implementation Process - with Implications for Regulatory Policy." Paper submitted to Public Policy.

Teichler, Ulrich. (1976). "Problems of West German Universities on the Way to Mass Higher Education," Western European Education, Vol. 8, No. 1-2.

Teichler, Ulrich. (1980). A Challenge to the German Higher Education Tradition. Occasional Paper 1 of L.A.C.E. (London Association of Comparative Education), No. 1.

Von Friedeburg, Ludwig. (1978). "Bilanz der Bildungspolitik," Zeitschrift für Pädagogik, Vol. 24, No. 2.

Van Horn, Carl. (1979). Policy Implementation in the Federal System. Lexington Books, Lexington.

Williams, Walter. (1979). "Developing an Implementation Perspective." Paper presented at the Convention of the Western Political Science Association.

Wulf, Christoph. (1974). Wörterbuch der Erziehung. Piper, München.